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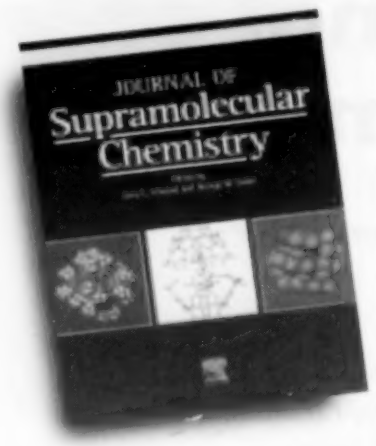

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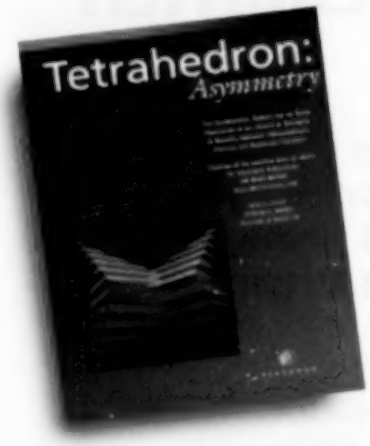

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AIMS AND SCOPE

Phytochemistry is the international journal of plant chemistry, plant biochemistry and molecular biology, published 24 times per annum by Elsevier Science. The majority of these publications will be *Regular Issues* covering research on all aspects of pure and applied plant biochemistry, especially that which leads to a deeper understanding of the factors underlying the growth, development and metabolism of plants and the chemistry of plant constituents. *Phytochemistry* is a primary source for papers dealing with plant secondary compounds, especially with regard to their biosynthesis and diverse properties. This specialisation is reflected further in *Special Issues* (Reports on Structure Elucidation) devoted exclusively to structure elucidation of phytochemicals which will now be published 5–6 times per annum. *Phytochemistry* is the official organ of 'The Phytochemical Society of Europe' and 'The Phytochemical Society of North America'. The Journal is currently divided into several sections as indicated below, but papers which cut across these sections or which are on any other aspect of plant biochemistry will also be considered.

Editorial Comment will be an occasional series where Regional Editors, Board Members or other scientists will be invited to comment on phytochemistry topics of global interest and debate.

Molecules of Interest will consist of invited short reviews (two printed pages) of individual compounds or macromolecules of plant, fungal or algal origin, which are currently attracting significant applied, commercial or biological interest. These can be novel compounds or newly discovered properties of familiar compounds.

Review Articles are published at regular intervals, ranging in scope from primary metabolism and regulation of plant growth, through plant enzymology to natural product chemistry and the biological activity of plant products. They deal with significant new areas of research and are intended to command the interest of the general reader. Authors should consult the Editors before preparing such articles, by submitting an outline of their proposed review.

The *Protein Biochemistry* section will contain reports on the purification of proteins directly from the organism or by heterologous expression. These will preferentially include information on enzymological properties, macromolecular structure and exploration of function, by site-directed mutagenesis and/or subcellular localisation. Reports of work which employ proteomics will be particularly welcome and are intended to complement the next section.

The *Molecular Genetics and Genomics* section contains papers on nucleic acid biochemistry, function and expression. This section will contain reports of genes and their analysis and expression, which demonstrate novelty and/or biological significance. Papers and communications which contain only sequence data or which duplicate studies of gene expression in other species will not generally be acceptable. Gene discovery using mutants and reverse genetics or exploration of functionality of genes in transgenic organisms will however be encouraged, if this provides new insight into unknown or previously known sequences.

The *Metabolism* section focuses on work in primary, intermediary and secondary metabolism. Contributions are particularly encouraged on the biosynthesis of macromolecules such as polysaccharides, lipids and other polymers such as lignin and their assembly in higher orders of structure such as membranes and cell walls. This section will also contain papers describing the further elucidation of known pathways and of newly discovered alternatives, as well as all aspects of metabolic regulation including regulatory molecules and proteins such as protein kinases and transcription factors. Studies directed toward understanding the regulation and possible cross-talk between pathways through the use of transgenic organisms are also strongly encouraged, as are those describing aspects of biochemistry regulated during growth and development at any stage of the organism.

The *Ecological Biochemistry* section contains papers on biochemical adaptations in plants to environmental stress; pollination biochemistry; plant toxins and their effects on animals, phytoecdysones, antifeedants; herbivory, plant defence and insect feeding preferences; utilization of plant substances by animals; and all aspects of biochemical plant pathology, including the production of phytotoxins and phytoalexin elicitation. Contributions on various symbiotic interactions are also welcomed. Also of considerable interest is the elucidation of the signalling molecules that govern the nature of the responses involved in the interaction between two or more organisms.

The *Chemotaxonomy* section contains papers on the comparative biochemistry of plants. These may range from distributional studies on low molecular weight compounds in a group of fungi, algae or higher plants to the comparative amino acid sequences of related proteins within groups of species. Papers on infraspecific chemical variation are also included here.

The *Bioactive Products* section contains papers on novel plant chemistry, where the biological activities of one or more of the new plant compounds are described. Descriptions of pharmacological, medical or therapeutic use or of dietary significance are encouraged. This section may also contain analysis of genetically modified plants that have been analysed for changes in their profiles of bioactive plant products. Such bioassay data should include comparable results for a known agent, so that the reader can judge the relative importance of any new finding. Full experimental details of the biological tests should be provided, and studies judged significant by the Editors may be invited to be discussed in the *Molecules of Interest* section before publication. In such cases, this review will appear in the same issue as the publication.

The *Chemistry* section contains papers on: growth substances, macromolecules, primary metabolites, terpenoids, polyketides, phenylpropanoids, flavonoids, alkaloids and compounds of mixed biosynthetic origin. Authors investigating the chemistry of a given plant species should aim to publish their results in a single manuscript rather than in a series of papers which describe each new compound as it is found. The structural analysis of new plant substances is now so routine that papers reporting a single novel compound of expectable structure (e.g. a new triterpene fatty acid ester) are rarely acceptable, unless other novel information on the plant is included.

Accelerated Publications are published at regular intervals. Papers appearing under this heading will have received fast publication due to their particular significance. Authors are encouraged to provide strong justification as to why papers should be considered in this category.

Book Reviews are published regularly and the journal welcomes the submission of new books for review, to the U.K. office. Symposia and Society announcements will be published, at the discretion of the Editors. Preliminary communications will not, however, be considered.

Authors should consult the latest instructions to authors see *Phytochemistry* (Volume 61, Issue 1) before preparing their manuscripts. All contributions must be in English and should be submitted to the appropriate Regional Editor for their geographical region. For U.K., Africa, The Commonwealth & Rest of the World: Professor G. P. Bolwell, Division of Biochemistry, School of Biological Sciences, Royal Holloway, University of London, Egham, Surrey, TW20 0EX, U.K. For the Americas and East Asia: Professor N. G. Lewis, Institute of Biological Chemistry, Washington State University, Pullman, WA 99164-6340, U.S.A. For Continental Europe and Russia: Professor D. Strack, Institut für Pflanzenbiochemie, Weinberg 3, D-06120 Halle (Saale), Germany.

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